

# Transmutation of Mercury into Gold by means of Acetic Acid

## Abstract

A simple test can show the transmutation of Mercury into Gold, proving that Lavoisier's Principle is experimentally groundless and that Alchemy is an Experimental Science.

## The "Principle" of Lavoisier.

In his *Traite Elementaire de Chimie*, Lavoisier gives "the key and the rules of the new system of Chemistry". (1)

On vol. IV, p.176, we can read: "New (term): Gold. Old (Alchemic) correspondent: Sun".

The description of Gold is then followed by the statement: "It seems impossible that for centuries Sects of Alchemists tried to change less precious elements into Gold". From the point of view of Lavoisier: "In all Chemical Reactions the same quantity of matter is present before and after the reactions". (1)

Lavoisier consequently hypothesizes that in a Chemical Reaction transmutations from one element to another do not occur ("Principle" of Lavoisier).

One cannot, for example, make Gold from Mercury by means of a Chemical Reaction.

Lavoisier was a very talented and well-educated man. The fact that he was trying to "translate" the "old" Alchemic terminology into the "new system of Chemistry" shows that he was aware of Alchemy.

We can certainly suppose, for example, that he had within his grasp the famous *Biblioteque des Philosophes Chimiques* of Salmon, (1672) with the works of Geber and Filalete. (2)

In Geber's *Summa Perfectionis* the first step to prepare the Philosophical Mercury (a peculiar isomeric configuration of Mercury) (3) is "to purify Mercury with good vinegar". (4)

In his *Principles*, point 7, Filalete states clearly that "it is necessary to wash the Mercury with vinegar and Salammoniac". (5)

Moreover, in his *Open Entrance to the Closed Palace of the King*, Filalete states unambiguously that: "Mercury can become the mother of all the metals. From Mercury, as a matter of fact, I can obtain everything, also the Sun (Gold) and the Moon (Silver), without the Transmutation Elixir" (the Philosopher Stone-a catalyst for the transmutation of Mercury into Gold). (6)

Unfortunately Lavoisier could not test the metallic transmutations induced by Acetic Acid. Or because the correspondent chemical reaction is very slow and he was not enough patient, or because during the French Revolution, on May 8, 1794, he was beheaded, and could work no more.

Given the high cost of pure Mercury, EUCAN Technologies asked if we had any problem using scrap Mercury coming from Electric Switches.

The answer was: no objections if the Mercury is enough clean.

Consequently 50Kg of Mercury were bought for a few dollars and Leon Theriault, the Foreman of EUCAN, decided to "wash" it with vinegar, as "he had seen to be in use in a mine". (8)

Owing to a stop in the preparation of the components for the disposal of the nuclear waste, an amount of Mercury remained "under washing" for a few months.

When it was used later, to obtain Mercury Nitrate, L. Theriault draw our attention on a surprising phenomenon: at the end of the dissolution of Mercury in Nitric Acid, a few milligrams of Gold remained.

We made immediately a test: the "untreated Mercury" was totally dissolved by Nitric Acid; the Mercury "treated" with vinegar left systematically traces of Gold.

Aware since many years about the role played by vinegar and Acetic Acid in the Alchemic processes (9), back in Italy we decided to try a simple application of the Principle of Banality (a variation of Ockam's razor) (7) on 1kg of "treated Mercury" which we brought from Canada.

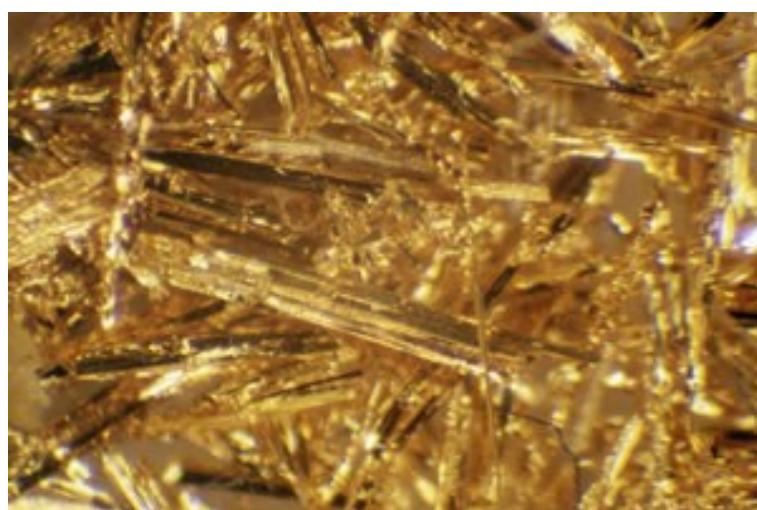
We decided to prepare a "tres bon vinaigre" (very strong vinegar) and to compare the effects with those of a "bon vinaigre" (good vinegar). (4)

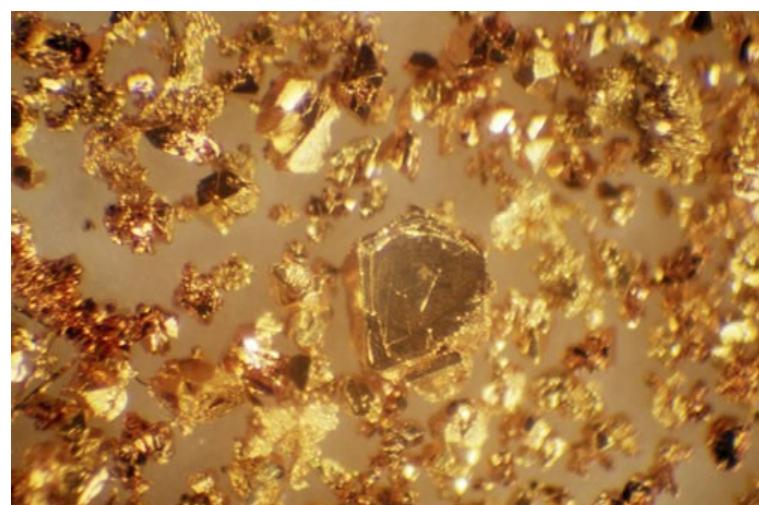
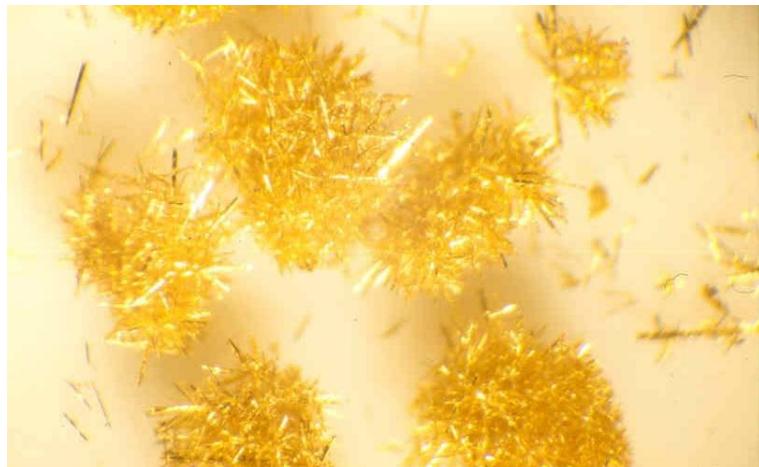
Consequently we divided in two parts our supply of "treated Mercury".

We washed half of it (500g) with white wine vinegar and the other 500g with a mixture (50%) of white wine vinegar and Acetic Acid, for 2 months.

After 2 months we took 100g from the first 500g, and 100g from the second 500g.

We have made Gold many times, in different ways, but the Gold obtained directly from Mercury in this way is the most beautiful we have ever seen (see photographs).





## **"Treatment" of the Mercury, to make Gold.**

Extract your Mercury from Cinnabar (HgS) by roasting, or get it from a Chemical Supply Company. We suggest at least 1kg of Mercury (two will be better).

We have observed that the "purified" Mercury gives very poor results because in the process of "purification" some properties are lost (the Mercury goes in the wrong isomeric configuration). (3)

The Mercury from Electric Switches is usually not purified. This is why it works better. Best of all will work the Mercury from HgS.

Once obtained your Mercury (we suggest 1 or 2 kg ) do the following.

- 1) Divide the Mercury in stocks of 500g.
- 2) Take a 100g sample from each of the 500g and dissolve it into a solution of 1 to 5 Nitric Acid, heating at about 80°. Normally it will dissolve completely. If not take note of what remains.
- 3) Put the remaining 400g in a glass container (1 liter Kerr Jars are good).
- 4) Prepare a solution of 1/2 liter white wine vinegar and 1/2 liter of Acetic Acid.

5) Put 1/2 liter of the mixture into the Jar, so that the Mercury will be completely covered.

6) Shake the Jar by hand for a few minutes until the Mercury is reduced to tiny beads, so that the surface in contact with the liquid is a maximum.

7) Do the shaking one or two times a day.

8) After about two weeks some kind of sludge comes out from the Mercury and "covers" it.

If you have two Jars: a) you can keep one clean shaking and substituting the solution with a new 1/2 liter. Save the 1/2 liter solution in another Kerr Jar. In one day the sludge will go to the bottom and you can recover and use again the clean mixture. b) just shake the solution in the second Jar one or two times a day. Look if there is any difference in the final results.

9) After about two months (with Mercury from HgS) you can make the first test: take 100g of the "treated Mercury" and dissolve it in 1 to 5 Nitric Acid (100cc Nitric Acid + 500cc water) at about 80°. You should find the kind of Gold shown in the photographs.

10) You can repeat the dissolution every 15 days three more times (for each Kerr Jar). Pay attention to change the lids of the Kerr Jars at least every 15 days. The Mixture of vinegar and Acetic Acid is very corrosive: it will "eat" the lids of the Kerr Jars.

11) After having dissolved the Mercury pour the solution and clean the Gold (keep it in the beaker) with a mixture 1 to 2 Nitric Acid (100cc Nitric Acid + 200cc distilled water). Pour the 1 to 2 Nitric Acid and wash the Gold with water. Pour the water and dry the Gold in the beaker on a hot plate.

12) Look with a microscope and analyze your Gold.

When analyzed with SEM (Electron Microscope) it will show only Gold; but when dissolved in Acqua Regia for ICP it will show: 10% Mercury, 90% Gold, owing to its "origin" from Mercury. The source of Mercury is important owing to the different isomeric configurations which can occur in the Mercury. You can make the comparison with different types of Mercury.

## Conclusion.

This experiment, in our opinion, is of great didactic importance. The experiment can be easily reproduced, at low expenses, in the laboratory of any University.

It seems not showing seasonal effects and can be started and concluded in a few months.

It shows clearly that:

- 1) The "Principle" of Lavoisier is experimentally groundless.
- 2) Alchemy is an Experimental Science.

We strongly suggest it to the students of Chemistry.

The source of Mercury is important: better results are obtained taking the Mercury directly from Cinnabar. (10)

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### References.

- 1) A. L. Lavoisier, *Traite Elementaire de Chimie*, (Italian Edition), Vol. IV, Venice, 1792.
- 2) G. Salmon, *Bibliotheque des Philosophes Chimiques*, Paris, 1672 .
- 3) R. A. Monti, "Low Energy Nuclear Reactions: The Revival of Alchemy", Proceedings of the International Conference *Space and Time*, St. Petersburg, Russia, 2001, p.178.
- 4) Geber, *Summa Perfectionis*, Ed. Tredaniel, Paris, 1992, Vol. II, p.17.
- 5) I. Filalete, "Principles", In: J. Sadoul, *The Treasure of the Alchemists* (Italian Edition), Ed. Mediterranee, Roma, 1972, p.44.
- 6) I. Filalete, *Open Entrance to the closed Palace of the King* (Italian Edition), Phoenix, Genova, 1987, p.11.
- 8) L. Theriault, Private communication to R.A. Monti.
- 9) See: G. Rupescissa, *On the Preparation of the true Philosopher Stone* (Italian Edition), Ed. Atanor, Roma, p.41; G. Testi, *Dictionary of Alchemy and Antiquary Chemistry* (Italian Edition), Ed. Mediterranee, Roma, 1980, p.73.

## Transmutation of Mercury into Gold by means of Acetic Acid (First Filalete's Exercise).

Acetic Acid, in the Alchemic Dictionary, is named *Vegetable Acid* (14).

The amount of terms and the References related to Vinegar in Alchemic Literature,

show that Vinegar plays an important role in Alchemy.

As a matter of fact in Geber's "Summa Perfectionis" the first step in the preparation

of the *Philosophical Mercury* (a peculiar isomeric configuration of Mercury) consists

in the: *Purification of Mercury by means of good Vinegar* (15).

In his "Principles", point 7, Filalete states clearly that: *It is necessary to wash*

*Mercury with Vinegar and Sal ammoniac* (16).

Moreover in his "Open Entrance to the Closed Palace of the King", Filalete states that:

*From Mercury I can obtain everything, even Gold and Silver, without the*

*Transmutation Elixir* (17).

We tried an experimental test, which we called *first Filalete's exercise*, following

Geber's and Filalete's hints.

We washed, following Geber's instructions, 500g of Mercury in *very good Vinegar*,

obtained mixing 1/2 liter of Vinegar with 1/2 liter of Acetic Acid for 2 - 3 months.

Then we took 100g of the *washed Mercury* from the 500g.

Once dissolved in Nitric Acid 1 to 5, the 100g showed 55mg of Gold crystals.

After 2 more months 100g of the same lot of 500g, dissolved in Nitric, gave 88mg of

Gold crystals.

Analyzed by SEM and ICP the Gold crystals showed to be from 100% to 90% Gold.

The most beautiful we have ever seen.

## The ingredients:

- 1 kg of Mercury (Hg), for example in the product catalog, Carlo Erba Reagents, Code No. 460 737; market cost about 250 euro per kilo
- 6 liters of nitric acid 65% RPE, for example in the product catalog, Carlo Erba Reagent No. 408 022; market cost about 25 euro per liter
- 5 liters distilled water, 5 € (at the supermarket)
- 1 liter of white wine vinegar, 1 euro (at the supermarket)
- 1 liter of Glacial Acetic Acid 99-100% from the Polichimica srl of Bologna; market cost 8 euro per liter
- a couple of jars for Zuegg[2] jam (empty of course).

PS: as you can see by these costs, especially that of mercury, that it is not convenient to produce gold in this way, but it certainly allows the scientific operation of an alchemical transmutation.

**This is the recipe dictated by Dr. Roberto Monti.**

### **First operation**

Dissolve 100 g of Hg in Nitric Acid (HNO<sub>3</sub>) in the proportion 1:5 (example: 100cc of HNO<sub>3</sub> + 500cc of distilled H<sub>2</sub>O for a total of 600 cc).

Simply put the Mercury into a beaker of 250 cc glass Pyrex (€ 5).

Then pour the Mercury into the nitric acid solution 1:5 to fill the beaker.

Put the beaker on a hot plate by adjusting the temperature to 90°C with a normal thermometer.

The dissolution can be done easily in one day (add the solution of HNO<sub>3</sub> + H<sub>2</sub>O little by little to allow it to evaporate taking it to 600 cc). The mercury is totally dissolved, and shows signs of appreciable gold.

## **Second operation**

Put the remaining 900 g of mercury in a glass container (I find the Zuegg jam packs to work very well).

It verses above the Mercury a mixture (50%) of white and Acetic Acid Glacial 99-100% wine vinegar up to the level of the second swelling of Zuegg jar.

## **Third operation**

Seal the jar tightly and shake the contents until you see the Mercury divide into tiny balls (this takes a few minutes); put it away in a locked drawer and repeat this operation preferably every day, whenever it comes to mind.

## **Fourth operation**

After 10-15 days (just enough time to eat easily the contents of a second quantity of "Tra-

*ditional Zuegg*" and so you will have the second jar) the "scum" begins to "exit" from the Mercury. You should, at this point, "clean" the mixture of vinegar and acetic acid using the second Zuegg jar. The purpose is to shake the contents of the first jar until the sediments are well suspended in the solution.

Pour the solution into the empty jar (taking care not to allow the Mercury to leave) and fill the first (to the level indicated) with the previously prepared solution (preserving which solution goes into each glass container).

## **Fifth operation**

Let the second jar of solution rest until the sediments are well deposited on the bottom (10 - 15 days).

Repeat the fourth operation for about four months, whenever it suits you: two jars of "*Traditional*", a liter of white wine vinegar and a liter of acetic acid are therefore usually more than enough.

## **Sixth operation**

After about four months (depending on the efforts made) you can extract the first gold from the Mercury.

Take 100 g of "*treated*" Hg and dissolve it in nitric acid 1: 5, as in the first operation.

The mercury dissolves slowly and, when it is reduced to a ball, be careful; at some point it will "explode" by expelling all the gold produced that will then disperse to the bottom of

the beaker in the form of a “*dust*” of very fine specks of gold that you can see.

I have worked many times with Gold in different ways, but the gold extracted directly from Mercury in this way is the most beautiful I’ve seen.

So you can repeat this process eight times and produce enough gold, leaving no doubt about the reality of this Alchemy (My advice is to “*clean up*” the Gold product with a solution of 1:2 HNO<sub>3</sub> + H<sub>2</sub>O. Wash with distilled water and dry your gold inside the beaker on the hot plate. Finally also keep the nitrate of Mercury product in a glass container, useful from time to time).

By following these instructions you will have produced your first Gold and can, therefore, consider more carefully the real possibility of the existence of the Philosopher’s Stone, and of the Trasmutatorio Elixir and the Elixir of Long Life.

I’m not an Adept, and so I have not the Stone, but I feel certain I have the ability to produce it. I, however, had a number of confirmations of the fact that there were ancients who were in possession of it, by Diogenes Laertius in the “*Epimenides Life*” and, more recently, by Albert the Great (1270), Glauber (1300), Basil Valentine (1400), Flamel (1413), Aurach de Argentina (1475), Salomon Trismosin (1500), Irenaeus Philalethes (1645).



Important note: we consider it appropriate to point out to all the “little alchemists” who want to try their hand in the business, that the elements mentioned by Dr. Roberto A. Monti (mercury, glacial acetic acid, nitric acid, etc.) Are TOXIC and / or aggravated and therefore must be handled with extreme attention mainly to the skin, eyes and lungs.

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**[1]** Fate da voi il vostro oro!

**[2]** A famous swiss brand of marmalade.